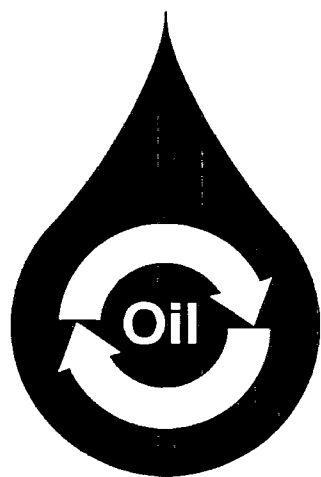
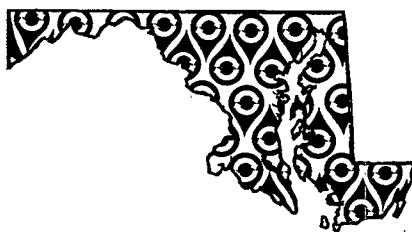




Used Oil Recycling



Maryland Holds Used Oil Disposal at Bay



State-sponsored collection sites in Maryland recovered 320,000 gallons of do-it-yourself (DIY) used oil in 1991, a 122 percent increase over 1990 totals. Debra Wagner of the Maryland Environmental Service (MES), an agency of the Maryland Department of Natural Resources, attributes the jump in recycling to the convenience of recently opened collection sites and the effectiveness of MES public outreach efforts.

Prompted primarily by concern for the health of the Chesapeake Bay, Maryland lawmakers passed a used oil recycling act in 1978 that mandated recovery of all DIY used oil. The act established a legal and administrative framework that today has allowed the Maryland recycling program to become one of the nation's models for success. Currently, over 150 government-sponsored and almost 300 privately sponsored collection sites operate throughout Maryland. These sites divert thousands of gallons of used oil that otherwise could despoil the state's watershed, 95 percent of which drains into the Chesapeake Bay.

During the 1980s, a network of service stations sparsely located throughout the state voluntarily collected used oil. Recognizing a need for a more comprehensive program, MES launched a government-sponsored collection system in 1988. MES first concentrated on opening collection sites at local solid waste transfer stations and public works facilities, but more recently has expanded the scope of the program to include more frequently visited private establishments, such as auto parts

stores and marinas. "We want to provide consistent, dependable services," Wagner said, "so that DIYs can go back to the same location and drop off used oil and not worry that it will be shut down due to economic changes."

In opening a collection site, MES provides a 275-gallon tank to site owners and takes responsibility for any contamination that might occur (although thus far MES has not encountered any problems). Participating site owners must construct a containment wall to protect the surrounding territory against accidental spills. The average containment



This logo is used both to represent Maryland's used oil recycling program and to label collection tanks.

wall costs \$400 to \$800, a price private site operators are willing to pay for good publicity and an increased flow of potential customers, Wagner said. Private contractors collect the oil for re-refinement or reprocessing.

MES bolsters its collection network with a number of outreach and communication activities. For example, MES offers a toll-free telephone service (1-800-I RECYCLE or 1-800-473-2925) that Maryland residents and people in the Washington, DC/Northern Virginia area can call to find out about the used oil collection site nearest them. In addition, MES has published educational brochures and pamphlets, produced an 8-minute informative video on the recycling process and the environmental impacts of improper used oil disposal, and aired public service announcements on local television and radio.

For more information, contact Debra Wagner of MES at (410) 974-7282.

In This Issue

- **Maryland Holds Used Oil Disposal at Bay (p.1)**
- **Safety-Kleen Pumps Up Recycled Oil Markets (p. 2)**
- **API Orchestrates Far-Reaching Collection Program (p. 2)**
- **Louisiana's Used Oil Recycling: One Person's Project (p. 3)**
- **Straight from the Crankcase (p. 3)**
- **No Hazardous Waste Listing for Used Oil Destined for Disposal (p. 3)**
- **Collection Joint Effort: City of Houston and Private Companies (p. 4)**



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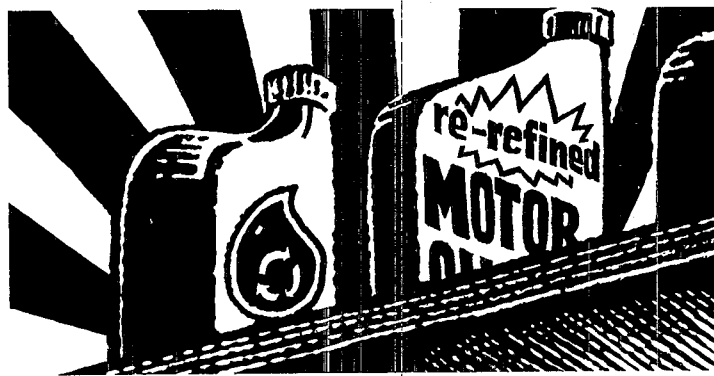
Safety-Kleen Pumps Up Recycled Oil Markets

EPA estimates a national used oil re-refining capacity of over 150 million gallons annually. One company, Safety-Kleen Corporation, has over 50 percent of the national capacity. In April 1991, Safety-Kleen opened a new plant in East Chicago, Indiana, that has the capacity to re-refine 75 million gallons of used oil per year into high-grade oil.

The company has over 100 branch offices that collect used oil primarily from automotive and industrial operations. In addition to expanding its own nationwide collection network, Safety-Kleen has grown in recent years by purchasing other used oil collection and recycling companies, including Breslube, Inc.

Company trucks collect oil from businesses by using special mechanical pumps. The oil is then taken to an accumulation facility, which typically holds 20,000 gallons. From the holding facility, railcars or trucks transport the used oil to the East Chicago site for re-refining.

Safety-Kleen's re-refining process removes any contaminants in the used oil. The result is a high-quality lube oil basestock that can be used in products such as hydraulic and crankcase oils and transmission fluids.



Safety-Kleen uses 100 percent re-refined oil in its line of packaged motor and lube oils, which are labeled as recycled products and carry the American Petroleum Institute (API) symbol of approval. The API symbol indicates that the re-refined oil has passed the same quality test that is used for virgin oil products.

For more information, call Dennis Brinkman of Safety-Kleen at (312) 694-2700.

API Orchestrates Far-Reaching Collection Program

EPA believes that used oil recycling requires a grassroots effort both in the public and private sectors. As noted by Chuck Krambuhl of the American Petroleum Institute (API), "No one group operating alone is going to make used oil recycling work. It is going to take everyone—oil companies, legislators, local governments, retailers, educators, recyclers, re-refiners, and do-it-yourselfers (DIYs)—working in harmony to address the issue."

API, a trade association representing over 250 companies involved in all aspects of the oil and gas industry, is playing its part with a far-reaching public awareness and technical assistance program targeted at state and local governments and America's DIYs. Through API's program, which complements efforts by its member companies, the Institute hopes to encourage development of used oil collection programs in cooperation with government officials and community leaders throughout the United States.

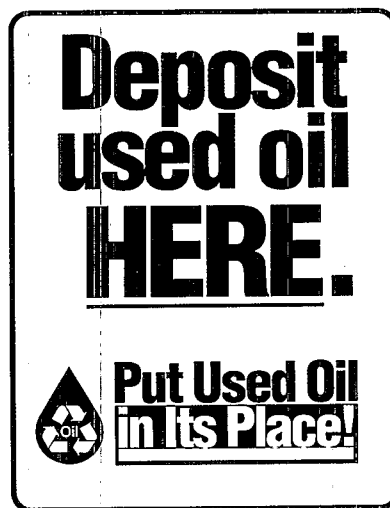
API believes the best strategy for ensuring the proper handling of used oil consists of developing state and private programs to promote collection and education. To promote this strategy, the Institute has developed outreach, implementation, and communication materials aimed at every link in the used oil recycling chain, from DIYs and service stations to state and local officials.

As part of the Institute's communication campaign, API representatives have been making presentations to public policy groups, legislators, and other interested parties in order to bring their attention to the need for used oil collection and recycling. In addition, the Institute has developed a question and answer sheet on used oil collection programs and an information brochure for the general public.

On the implementation front, API is providing educational and technical materials and advice to local government managers, regulators, and, in some cases, tax administrators to help them organize collection programs. For instance, the Institute has developed a kit containing a model public education campaign and camera-ready publication materials that can be tailored to the informational needs of any community. API also has prepared a bibliography of literature on used oil recycling.

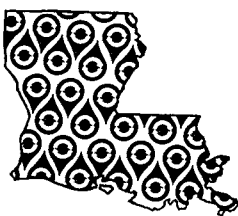
API's ambitious program also includes a legislation development component. To encourage the collection of used oil, the Institute has developed a model bill that states can use when drafting legislation. Several states have passed legislation similar to API's model bill.

For copies of the publications described above or for more information on API's used oil collection program, call Charles Krambuhl of API at (202) 682-8226.



API has developed this sticker to identify used oil collection tanks.

Louisiana's Used Oil Recycling: One Person's Project



Largely due to the expertise and enthusiasm of one person, the state of Louisiana has established a successful do-it-yourselfer (DIY) used oil recycling program. In June 1990, Tom Patterson finished a master's thesis at Louisiana State University on public used oil recycling programs. The

thesis might very well have been shelved for future reference and research if Patterson had not had the will to follow through with an "action plan" to implement such a program in his home state of Louisiana.

One and a half years later, Louisiana's used oil recycling program has over 200 collection points scattered throughout the state, despite the absence of an official program and state or federal funding. Patterson stresses, however, that only with approval from the Louisiana Department of Environmental Quality's (LDEQ's) Hazardous Waste Division has he been able to achieve this success. With LDEQ support, the program has managed to enlist a host of service stations, fast-lube service centers, government collection centers, major employers, and other establishments to provide convenient collection locations for Louisiana residents.

Patterson describes his used oil program as a "win-win situation" for everyone involved: DIYs who want to manage used oil safely, businesses and other institutions that can benefit from the good publicity that comes with setting up a collection site, and recyclers who need the supply of used oil. Many store owners also realize that a used oil collection center can draw more people into their stores, which means more potential customers.

Louisiana's used oil recycling continues to increase in scope. Patterson and members of environmental and wildlife conservation groups are investigating an array of funding mechanisms for the program, recruiting more large employers into the recycling network, encouraging localities to set up their own programs, and planning an assortment of educational and communication projects.

Ultimately, Patterson envisions the program being run by parish (the equivalent of a county) recycling coordinators with technical and financial assistance from the state. Although no Louisiana laws currently exist regulating DIY used oil management, Patterson said two organizations, the Louisiana Wildlife Federation and Citizens for a Clean Environment, have very actively helped bring the issue to the attention of state legislators, and he hopes to see passage of funding legislation for the used oil recycling program in the near future. "With the funding of an official program, we

would have the resources to analyze our progress and expand even more," Patterson said.

For more information, contact Tom Patterson of LDEQ at (504) 765-0249.

No Hazardous Waste Listing for Used Oil Destined for Disposal

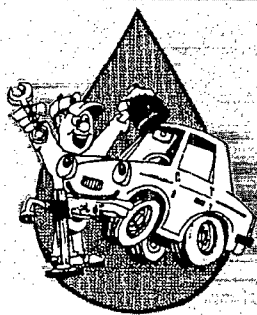
Last fall, *Used Oil Recycling* discussed EPA options for listing used oil as a hazardous waste and/or establishing management standards for the handling of used oil. In a subsequent May 1, 1992, rulemaking, EPA determined that used oil being disposed of does not need to be listed as a hazardous waste. The Agency believes this approach is a more practical way of protecting human health and the environment, while encouraging and promoting recycling of this valuable resource.

Under current regulations, before disposing of used oil, a used oil handler must determine (through testing or knowledge) that the used oil does not exceed the regulatory limits for constituents covered by the toxicity characteristic (TC). The TC rule provides regulatory limits on lead, benzene, and other substances that may be present when used oil is produced. Used oil that fails the TC must be disposed of according to hazardous waste regulations. Used oil that does not exceed the TC is not considered a hazardous waste. At present, used oil that is recycled is exempt from the TC rule.

This determination does not address used oil that is recycled, and it does not apply to used oil generated by individuals and households. EPA will soon make a final decision on appropriate management standards for used oil handlers and issue a listing determination on recycled used oil.

In addition, the Agency has determined that properly drained used oil filters do not exhibit the TC. Therefore, the Agency has determined that crushed or drained used oil filters are not hazardous and need not be regulated when recycled or disposed of. (See the *Federal Register* notice concerning this rulemaking for more information on terne-plated oil filters.)

To order a copy of the *Federal Register* notice concerning this rulemaking or for additional information, contact the RCRA Hotline, Monday-Friday, 8:30 a.m. to 7:30 p.m. EST. The national, toll-free number is (800) 424-9346; TDD (800) 553-7672 (hearing impaired); in Washington, DC, the number is (703) 920-9810, TDD (703) 486-3323.



Straight from the Crankcase

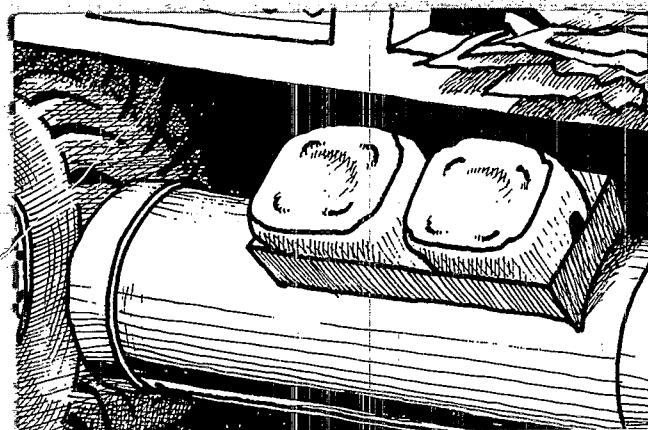
Three years after the inception of its recycling program, Jacksonville, Florida (population over 541,000), is collecting an average of 2,000 gallons of do-it-yourselfer used oil per week. Victor Cole, project manager of the voluntary drop-off effort, reports that since December 1989 the city has recovered a total of over 100,000 gallons of used oil. The municipality's 18 collection containers, stationed at city firehouses, are open 24 hours a day, 365 days a year and are emptied at least twice a week by a city contractor. For more information, contact Victor Cole of the Jacksonville Department of Public Utilities at (904) 387-8949.

Collection Joint Effort: City of Houston and Private Companies

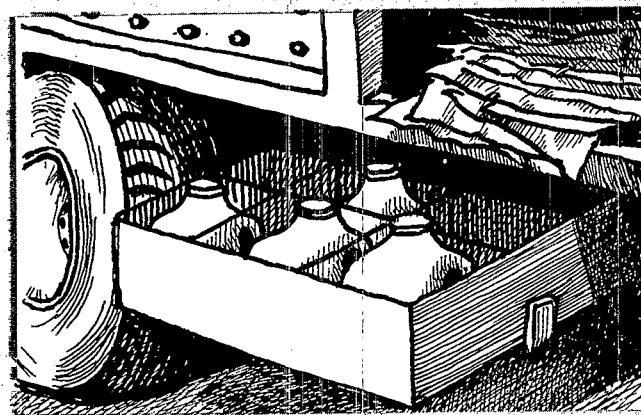
Several large oil companies recently donated the resources to initiate a used oil curbside collection pilot project in Houston, Texas. The companies—Conoco, Inc.; Exxon Company, U.S.A.; Pennzoil Company; Shell Oil Company; and Texaco, Inc.—are cosponsoring the collection effort with the city of Houston as part of the American Petroleum Institute's (API's) used oil collection program. The city of Houston is operating the program, which was kicked off in April.

To get the project moving, over 300,000 households are being supplied with labeled plastic containers (similar to milk jugs) to hold their used oil. Project organizers are experimenting with two ways to collect used oil at the curb. Trucks that already were being used to collect other recyclable materials, such as glass and aluminum, have been retrofitted with either racks or tanks for holding used oil. City employees either collect the used oil in containers and place them on racks or drain the used oil from the containers into tanks. In both cases the collectors then transport the used oil to one 1,000-gallon holding tank at a city transfer yard. When the tank is full, a hauler is called to take the used oil away for recycling.

The Houston project is an example of how various parties can cooperate to meet the challenge of collecting used oil. For more information, call Charles Krambuhl of API at (202) 682-8226.



One method for collecting used oil at the curb is to drain it into a tank.



Another collection method is to place containers on racks.

The mention of publications, products, or organizations in this newsletter does not constitute endorsement or approval for use by the U.S. Environmental Protection Agency.

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